

REPORT OF THE SECRETARY OF STATE
ON THE EXAMINATION AND EVALUATION OF AN
OPTICAL SCAN ELECTRONIC VOTE TALLYING SYSTEM

In March 2001 Diebold, Inc. of Canton, Ohio (formerly Global Elections Systems of McKinney, TX) requested the review and examination of a direct recording electronic system under RCW 29.33.041 and 29.33.300. The hardware and software for this system are marketed under the name AccuVote AVTS-R6 DRE Touchscreen. The Hardware components include: Smart Card Reader and Burner, optional ten-key pad and headphones (used in the disability accessible mode), and the AccuVote AVTS-R6 electronic voting device (firmware 4.0.11). The Software that provides the administrative functions of the system is defined in the GEMS module (version 1.17.17).

The AccuVote AVTS-R6 is a poll-site based, direct recording electronic (DRE) voting device with a touch screen interface which interprets touch in specified locations to interact with the voter. An optional ten-key interface allows independent voting for those with sight limitations when used in conjunction with audio playback and headphones. A PCMCIA card is used to transfer the election-specific database including ballot styles to the DRE device from the GEMS module, as well as transfer the cumulative results from the DRE back to GEMS.

A Smart Card is used to "issue" a specific ballot style to a voter. Once an election worker has programmed a ballot style identifier onto the card, using the smart card burner, a voter may vote by inserting the card into the reader attached to the AVTS-R6. The insertion of the card activates the corresponding ballot definition. After "casting" the ballot, the card is disabled and must be re-programmed before it can be used again.

The GEMS software is menu driven and allows the user to describe all aspects of an election. In preparation for ballot counting, the user enters (or downloads from a compatible voter registration system) office descriptions, positions, precinct combinations, ballot types, and any statistical information such as registered voter totals. The GEMS software is also used to produce and download the election definition including the precinct specific programming for the entire county onto the PCMCIA card. The AccuVote AVTS-R6 can be then be initialized as an 'early voting' system with access to all the precincts and ballot styles for an election when any programmed PCMCIA card is installed. Alternatively, the AccuVote AVTS-R6 can be initialized for a specific polling place with a specified subset of precincts and ballot styles at the time the PCMCIA card is installed.

A personal computer running the GEMS software serves as the central accumulator for county wide results. GEMS can accumulate results via reading the PCMCIA cards directly connected or through telephonic communication with the AccuVote AVTS-R6.

An electronic vote tallying system must meet the following requirements (as set forth in RCW 29.34.090) in order to be approved for use in Washington State:

1. It must correctly count votes marked on the ballot for any office or ballot proposition;
2. It must recognize and not count overvoted ballots;
3. It must accumulate a count of a specific number of ballots tallied for a precinct;
4. It must accommodate the rotation of candidates' names;
5. It must automatically produce precinct totals in either printed, marked, or punched forms;
and
6. It must add precinct totals and produce a cumulative total.

On April 8, 2002 a public hearing was held to demonstrate the AccuVote AVTS-R6 DRE Touchscreen System. Representing the Office of the Secretary of State was Paul Miller, Registration and Systems Manager. The meeting was also attended by The Honorable Evelyn Arnold, Chelan county Auditor, staff members of the Chelan county auditor office, and a representative from Diebold. The vendor made a presentation of the system and a test election was conducted using ballots prepared by the Office of the Secretary of State cast by observers. The vendor answered questions from the Secretary of State staff and the public.

FINDINGS OF THE SECRETARY OF STATE

Upon review of the staff evaluation of the Global Elections Management System (GEMS, NASED N0306011717) using the AccuVote AVTS-R6 DRE Touchscreen device (NASED N010702-4011), the presentation by the vendor, the evaluation of the system conducted by the Wyle laboratories in 2001 and the results of the tests performed on this system, the Secretary of State finds that the system satisfies the requirements of RCW 29.33.300 when used in the manner described below.

The system will be used only in Chelan county for the voting period associated with the April 23, 2002 Special Election to be held in that county. This provisional certification constitutes an initial step toward the final certification that would allow any county to use the system in future elections. The Office of the Secretary of State (OSOS) deems it necessary to conduct an election under tightly supervised circumstances in order to reliably operate the system in a manner consistent with the Revised Code of Washington (RCW), protect the privacy of the voter, and ensure the integrity of the election.

The system's provisional voting features as currently designed may be used for this election only since there was only one jurisdiction with a contest on the ballot. The AccuVote AVTS-R6 provides a feature of convenience that allows a ballot to be cast on the device if there is uncertainty about the voter's eligibility at the pollsite and optionally included in the election results later after review by election staff. The test and materials review could not establish that the feature functions in a manner consistent with RCW and state practice when there is more than one election jurisdiction involved in the election.

The design of the AccuVote AVTS-R6, and the requirements of Washington State law, necessitate the use of the following procedures on the part of the user county to use the AccuVote AVTS-R6 as an 'early voting' system. 'Early voting' refers to voters who cast a ballot on the AccuVote AVTS-R6 prior to the election date. Conceptually this is the same as a voter picking up and casting an absentee paper ballot at the county elections office prior to an election.

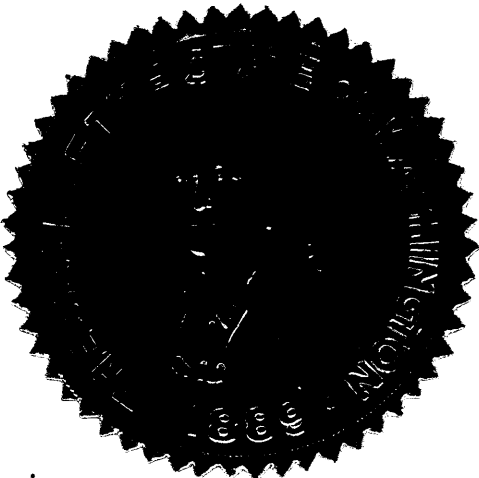
The procedures are:

The system may be used as an 'early voting' system if the security safeguards applied to the AccuVote AVTS-R6 are consistent with those used to protect returned absentee ballots. Access to the AccuVote AVTS-R6 must be controlled. The device must remain in plain view of the office at all times during working hours and under lock and seal after business hours. The AccuVote AVTS-R6 voter must sign the same oath an absentee voter does and the user county must maintain a log of all 'early' voters with the voters' signatures. The poll books must be marked with an indicator that warns the pollworker not to issue a ballot to a voter who has voted early. It is also recommended that the user county keep a record of the number of votes cast each evening when they close the AccuVote AVTS-R6 and confirm the number of votes on the device when opening the device the next morning. It is further recommended that the PCMCIA card be kept separate from the AccuVote AVTS-R6 after hours.

A county intending to use the telephonic functions of the AccuVote AVTS-R6 system must perform a reconciliation of the results prior to certification. This may be accomplished by either performing a direct reading of the PCMCIA card into the system using the GEMS software cumulating the results, or by proofing the precinct results recorded in GEMS against the printout created by the AccuVote AVTS-R6 at the close of voting before telephonic transmission.

Under the provisions of RCW 29.33.041, the AccuVote AVTS-R6 Direct Recording Electronic Touchscreen System using the Global Elections Management System (GEMS v.1.17.17, NASED N0306011717) and the AccuVote AVTS-R6 (NASED N010702-4011) with associated firmware (v.4.0.11), are approved for use in Washington State, as a direct recording electronic vote tabulation system, when used in compliance with the procedures contained in this certification and Washington State law.

It is recommended that the canvassing board of any county using this system adopt written procedures governing these processes. This equipment should be used with a device or devices capable of suppressing current surges, voltage fluctuations, and any other line disturbances.



Certified on this April 10, 2002


SAM REED
Secretary of State